

various mouth bacteria. The value of this entire section is enhanced by the illustrations which are numerous and good.

The book is a valuable accession to any medical library ; for the bacteriologist the latest methods of investigation and of technique are described ; for the surgeon the means of sterilization and the experiments as to the relative value of antiseptics, are of value ; especially for the dentist the comprehensive discussion of caries renders it worthy of careful attention.

H. P. DE FOREST. \*

TEXT-BOOK OF NERVOUS DISEASES. By C. L. DANA, A. M., M. D., pp. 524. New York: WM. WOOD & CO., 1892.

A highly creditable and pleasantly elaborate treatise. There will be always a demand for such thorough treatises as this of Dana.

The general plan of the book would, however, we hold, be more acceptable if, in the presence of Edinger's and of Herter's new work, normal neurology, anatomical and physiological, were elided and the whole space utilized for the main purpose. But necessarily it is a compilation, and as such there may well be differences of opinion as to plan and even to authorities.

Dr. D.'s zeal is so well known, his standing as a neurologist is so secure, and his reputation in any case will be so far enhanced by a work of such general excellence as that under notice, that gentle criticism will be a greater honor than exuberant adulation.

There are many casual matters that might receive mention if space permitted.

Evidently he is somewhat enamored of athetosis, from the presence of two illustrations (pp. 19 and 366), the more so as this is only a special manifestation of hemiplegic chorea ;—justifiable perhaps as a personal compliment to Hammond.

For an exact estimate of the trustworthiness of a work, a reviewer naturally turns to fields with which he is most familiar or that have articularly interested him.

To bulbar paralysis D. gives two pages, but dismisses the equally requent pseudo-bulbar with a line, attributing it to "chronic lesions of the cerebral hemispheres," and mentions certain signs as "always

sufficient for a diagnosis." In reality however the differential diagnosis between these two is recognized as often most difficult. And the pseudo form may be due to trouble in the basal ganglia, to peripheral neuritis, or to no discernible cause, as well as to cortical lesions. The bulbar type of syringomyelia is mentioned on p. 285.

Under syphilis of the nervous system he almost if not quite ignores one distinct and sometimes important form, that due to the syphilitic poisoning *per se* independent of gross pathological changes; this may cause intense cephalalgia, stuporous conditions, temporary impairment of the pupillary reaction, etc.

Open to question is the statement on p. 70 that the most common infection in this country to cause polyneuritis is diphtheria; syphilis and malaria must be as frequent causes.

In describing the brain-circulation he has unfortunately reiterated certain of the errors in his article in the *Med. Recd.* for Jan. 12, 1889. This perhaps merely illustrates the tendency of all men who whilst they may have worked well on some lines, try to round out at other points by hasty recapitulation, (p. 315). "Consequently a knife plunged straight into the brain does not cut many vessels." If the brain-surface were level instead of rolling, this might be a proper inference; but in reality such exemption can only occur when the flat of the blade enters either perpendicularly to the surface of the convolution, or just at a bottom of a fissure,—very limiting conditions. "The most of these vessels enter the posterior portion of the sinus" (longitudinal). It is true that the largest supra-cerebral veins discharge a little posterior to the middle point of this sinus, but the posterior portion for some distance is free from entering veins.

(p. 316). "The superficial cerebral veins are *venæ comites*." They are certainly not. Only the dural veins are such.

"Most of the blood of the convexity and mesial surface must pass into the longitudinal sinus." As to the convex surface the statement is far too sweeping as any one can see by examining the plates and description of Labbé (*Arch. de Physlg.*, 1879). The blood from the external occipital region goes largely to the lateral sinus, and that of the Sylvian to a less extent basalwards. "The superior longitudinal sinus also communicates slightly \* \* \* with the facial vein."

This must refer to the path by the foramen cœcum,—which is, however, with rare 'exceptions, closed long before adult life. "On the whole, however, the system of the convexity and mesial cerebral surface is a close corporation, the blood having to pass into the superior longitudinal sinus and torcular." Nor is this true, as abundant and ample anastomoses exist between all these and neighboring veins. Here "it (*i. e.* the blood from the long sinus) meets that of the straight and occipital sinuses, and flows forward through the lateral sinuses." It *may* do so but in a majority of cases the two currents intermix slightly or not at all, as was shown by Rüdinger, and in this country by Dwight ("Anatomy of Head," 1876), one stream turning into one lateral sinus and the other to the opposite lateral.

(p. 317). "It is safe to tie any of the sinuses except the lateral and the posterior part of the longitudinal." Either of these sinuses may be tied at any point in their course, with but the slightest chance of harm resulting;—safe within the ordinary surgical acceptance of that term, as many pathological cases testify and every surgeon knows. But there would be serious risk in tying the straight sinus—an entirely possible operation.

(p. 317). "The pressure \* \* \* in the cerebral sinuses is 70 to 80 mm. (Gerhardt)." He might also in the same sense have quoted directly from Mosso. Yet in point of fact no one knows what the normal pressure in the sinuses is. It certainly cannot be greater than in the cerebral veins, for if so the blood would flow from the sinuses into the veins instead of the reverse. It has been fairly demonstrated (Bergmann) that no such pressure (70 to 80 mm.) rules in the cerebral veins. The trouble with the experiments on the sinus-pressures lies in the peculiar conditions and the assumption that the accumulated pressure back of an obstruction represents the normal lateral pressure.

(p. 317.) "The diameter of the common carotids is 6.7 mm. (Thorne), that of the subclavians 6.2 mm., that of the internal carotids 4 mm., and that of the vertebrales 3.5 mm. (Gerhardt). The blood to the brain, therefore, has passages three-fifths as great as the total arterial area near the heart." By following his own plan of reasoning as well as possible, we find here a note-

worthy error. The areas of circles are proportional to the squares of their diameters. Hence  $(6.7)^2 + (6.2)^2 = 44.89 + 38.33 = 83.33$  for the common carotid and subclavian. Again  $(4.0)^2 + (3.5)^2 = 16.0 + 12.25 = 28.25$  for the internal carotid and vertebral. This gives as the ratio  $\frac{28.25}{83.33}$  or almost exactly one-third instead of three-fifths as stated in the quotation (and which he evidently obtained by simple addition of diameters  $\frac{(4.0+3.5)}{(6.7+6.2)} = \frac{7.5}{12.9}$ ). Besides this he ignores entirely the aorta beyond the subclavians. Hence his estimate is doubly and enormously in error.

Perhaps the statements here called in question are of little importance anyhow,—but if worth making at all, would it not be better to have them nearer the fact?

The type is clear though rather small, the figures (210 in number) are well executed, the whole work compendious. It is without doubt one of the books that will sell well, and will prove very useful. The index does not do full justice to the contents of the volume.

WILLIAM BROWNING.

DISEASES OF THE KIDNEYS AND BLADDER. A Text-book for Students.

By W. F. McNUTT, M. D., M. R. C. S., Ed., J. R. C. P., Ed., Professor of the Principles and Practice of Medicine, University of California, etc. Pages 1-242. Eighteen illustrations. Octavo. Philadelphia: J. B. Lippincott & Co., 1892.

This volume is based upon notes of lectures, some of which have been revised and elaborated by the author, delivered to the medical students of the University of California. It is divided into five sections: Section I, twenty-three pages, reviews the anatomy and physiology of the kidneys, and includes a description of their anomalies of form, number and position. Section II, one hundred and one pages, is devoted to diseases of the kidneys. Section III, thirty-six pages, embraces diseases of the pelvis (of kidney). Section IV, forty-two pages, is occupied with the discussion of diseases of the bladder. Section V, twenty-one pages, is given up to the consideration of diabetes—mellitus and insipidus.